

**UNITED STATES DEPARTMENT OF COMMERCE****Pat nt and Trad mark Offic**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/392,434

09/09/99

BRADFORD

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ACA6124PDUS

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EXAMINER

SERGENT, R

ART UNIT

PAPER NUMBER

1711

DATE MAILED:

12/15/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/392,434

Applicant(s)
Bradford et al.

Examiner
Rabon Sergeant

Group Art Unit
1711



☒ Responsive to communication(s) filed on Aug 1, 2000

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-8 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-8 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 138,204.

The reference discloses the use of blends of non-oligomeric organophosphorus compound and oligomeric organophosphorus compound as flame retardants for polyurethane foams. See abstract and pages 2-4.

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3. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sicken et al ('965) or Fearing ('534 or '633), each in view of Keppeler et al ('612) or EP 428,221.

The primary references disclose the use of oligomeric organophosphorus flame retardants within polyurethane foams and further disclose that the oligomeric flame retardants may be blended with additional flame retardants. See column 4, line 32 within Sicken et al. See column 8, lines 27-34 within the Fearing references.

4. Though the references disclose that additional flame retarding agents may be used, the primary references fail to recite specific examples. However, non-halogenated phosphorus containing compounds were widely known flame retardants for polyurethane foams at the time of invention. This position is supported by the teachings of Keppeler et al at column 7, line 33 through column 8, line 67. Additionally, EP 428,221 discloses blends of oligomeric and non-oligomeric flame retardants. See example 11.

5. Therefore, the position is taken that it would have been obvious to utilize blends of oligomeric and non-oligomeric, non-halogenated phosphorus flame retardants within polyurethane foam compositions, in accordance with the teaching of the primary references.

6. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sicken et al ('965) or Fearing ('534 or '633) each in view of Keppeler et al ('612) or EP 428,221 as applied to claims 1-7 above, and further in view of Hardy et al. ('035 or '042)..

As aforementioned within paragraphs 3-5, the combined teachings of Sicken et al or Fearing and Keppeler et al or EP 428,221 are considered to render obvious the combined use of

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oligomeric and non-oligomeric phosphorus flame retardants; however, the non-hydroxyl group bearing oligomeric species of instant claims 7 and 8 are not disclosed by the primary references. Still, the claimed non-hydroxyl group bearing oligomeric species were known at the time of invention, as evidenced by Hardy et al. The position is taken that the oligomeric species of Hardy et al are close enough in structure and function to those of the primary references that one would have reasonably expected them to function with non-oligomeric flame retardants, as taught by the primary references. Therefore, it would have been obvious to utilize the flame retardants of Hardy et al with the aforementioned non-oligomeric flame retardants, so as to arrive at the instant invention.

7. Claims 3 and 6-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear how the "aryl groups" limitation is to be interpreted in view of the "alkyl group" limitation of amended claim 1.

Any inquiry concerning this communication should be directed to R. Sergeant at telephone number (703) 308-2982.

Sergeant/ph

December 5, 2000


RABON SERGENT
PRIMARY EXAMINER